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RX-NW SUPERVISION, Field Reports (Investigation of a silver fir stand for the Willamette Valley Lumber Company, in the Black Rock area, west of Dallas, Oregon.)

On May 29, 1956, Morris Bergman, Forester for the Willamette Valley Lumber Company, and the writer examined an area of dying Pacific silver fir in the Black Rock area west of Dallas, Oregon (T7S, R8E), to determine the cause. The investigation showed that Chermes sp. was responsible for the current mortality and the general degeneration of the silver fir in the stand.

Stand Composition - The dominant species is silver fir, with a considerable amount of western hemlock present. Douglas fir, western redcedar, and western white pine were also present as scattered trees.

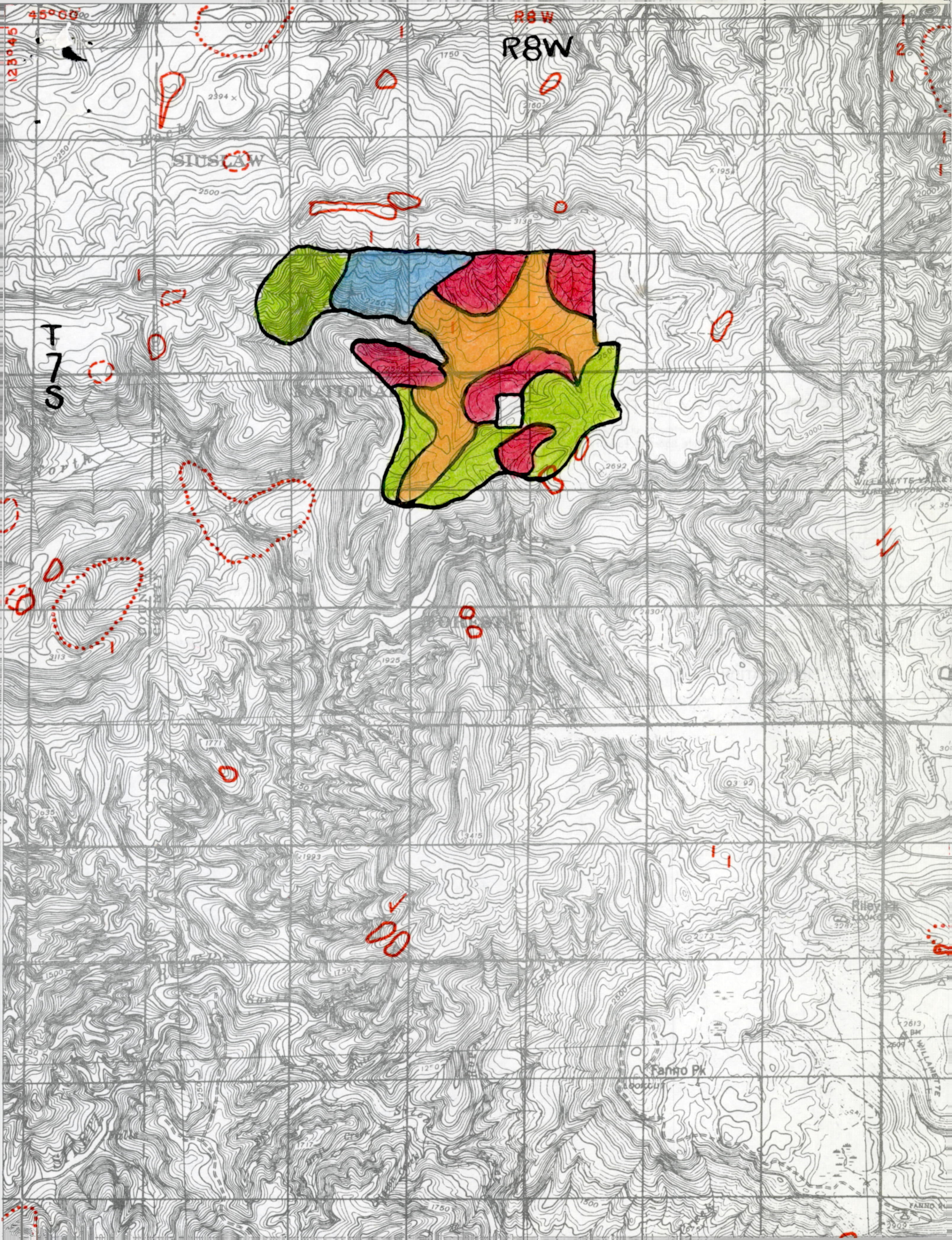
Site - Poor; site class from 4 to 5.

Investigation - A number of trees currently felled by loggers, and windthrown trees were examined. Crowns of individual standing trees were examined by the use of field glasses and the bases of these trees were examined by removing sections of bark, and by chopping into the roots. A general examination of most of the area in question was made with field glasses from various vantage points.

Results - The examination of felled trees showed that trees dead more than two years were killed by Pseudohylesinus bark beetles in association with Armillaria mellea root rot. P. granulatus seemed to have been more prevalent than P. grandis. The majority of felled trees examined were infested with Chermes sp., as indicated by the abundant gouting on the branch terminals, and the sparsity and discoloration of the foliage. All windthrown trees examined were heavily gouted by Chermes. Examination of standing trees indicated that a progressive deterioration of the crowns was taking place due to Chermes. Discoloration of the foliage progressed from a dark blackish-green to greenish-yellow, with the foliage becoming increasingly sparse. The bole infesting form of Chermes was not found. Very little current activity of either species of Pseudohylesinus bark beetles was found. No evidence of Poria weirii was found. By the use of field glasses, it was determined that the chermes infestation was present throughout the entire area.

Conclusions - From these investigations it was concluded that some mortality of silver fir in the past had been caused by Pseudohylesinus bark beetles, but that current mortality and general deterioration of silver fir is being caused by Chermes sp. The Chermes infestation is present throughout the area, and is in epidemic proportions.

Recommendations - It was recommended that tagged trees be examined periodically to determine the rate of mortality, and that salvage logging plans be made accordingly.


R8W
T7S
SIUSLAW
Fanno Pk

AND BARKBEETLE SURVEY IN THE DOUGLAS-FIR REGION, 1952

A cooperative project of the U.S. Departments of Agriculture and Interior
and the Oregon State Board of Forestry

VERPRINT

RED)

BEETLE-KILL INFORMATION

Heavy - Individual groups of 31 or more dead trees

Moderate - Individual groups of 6 to 30 dead trees

Light - General area containing at least one group of 2 to 5 dead trees per 40 acres

FIRE-KILL INFORMATION

Area burned in 1951 timber fires of more than 500 acres

COOPERATION IN THIS PROJECT

by

U.S. DEPARTMENT OF AGRICULTURE
Pacific Northwest Forest and Range Experiment Station
Bureau of Entomology and Plant Quarantine
Pacific Northwest Region, U.S. Forest Service

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

OREGON STATE BOARD OF FORESTRY

INDUSTRIAL FORESTRY ASSOCIATION

NOTE: MOST OF THE INFORMATION SHOWN WAS OBTAINED BY AERIAL SKETCH-MAPPING. WHILE ERRORS IN LOCATION MAY OCCUR WITH THIS TECHNIQUE, IT IS BELIEVED THAT MOST LOCATIONS SHOWN ARE WITHIN 1/4 MILE OF THEIR TRUE POSITION ON THE GROUND.